

Serial No. 10/715,317
Filing Date: November 17, 2004
Amendment and Response
Page 6 of 10

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REMARKS

This Response is a full and timely response to the Office Action of October 19, 2006. Claims 1-24 and 27-30 are pending, with claims 1-2, 6-14, and 17-24 presently amended, new claims 27-30 added, and claims 25-26 cancelled. No new matter is added.

I. RELATED APPLICATION

The present application claims priority to Application Serial No. 10/269,213, which is currently on appeal with respect to issues of potential relevance to the present application. Should the Examiner not have access to any prosecution or appeal materials related to that application, the attorney for the Assignee will gladly provide them.

II. CLAIMS 9 - 12 AND 21 - 24

Although claims 9-12 and 21-24 are rejected on the Office Action Summary Sheet, the Detailed Action is devoid of support for such rejections. Assignee's counsel thus assumes that claims 9-12 and 21-24 are allowable, or at least that they would be allowable if rewritten in independent form. New claims 29-30, which like claims 9-12 and 21-24 recite relatively tough yarns each having a filament and a spun yarn, are believed to be allowable as well.

III. REJECTIONS BASED ON THOMAS

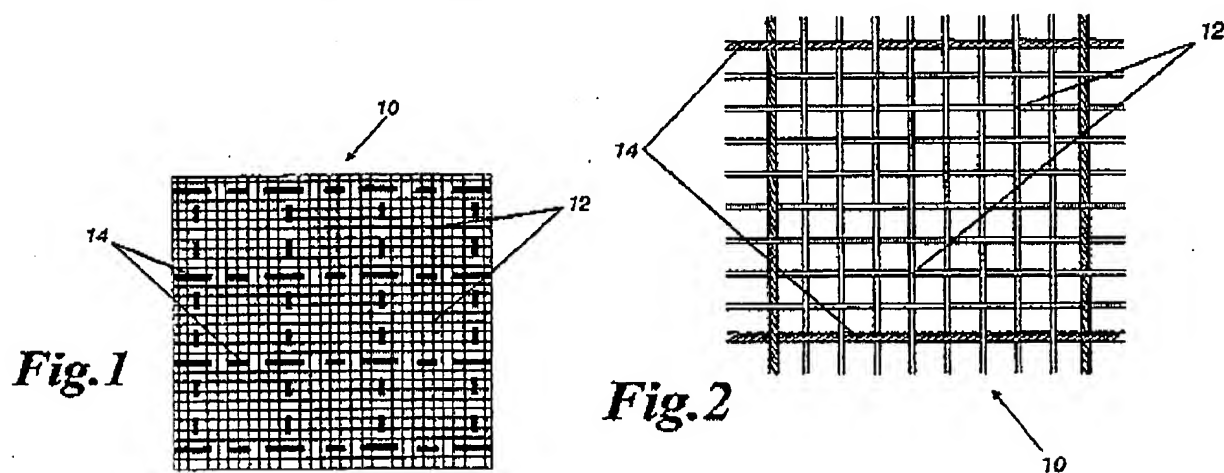
The Office Action rejects claims 1-5, 8, 13-17 and 20 under 37 C.F.R. § 102(e) as anticipated by U.S. Patent No. 6,624,096 to Thomas et al. (hereinafter "*Thomas*") and claims 6, 7, 18, and 19 under 37 C.F.R. § 103(a) as being unpatentable over *Thomas*. These rejections are respectfully traversed, and Applicants' Assignee respectfully requests that they be withdrawn.

Independent claims 1 and 13 have been amended to clarify that "the relatively tough yarns *do not protrude beyond an outer surface of the fabric body*." (emphasis added.) Applicants' specification supports such amendments at least at pg. 7, ln 1-8, "fabric 200 can be configured so that the relatively tough yarns 208 do not protrude beyond the outer surface of the fabric such the fabric shields the relatively tough yarns from abrasion."

Thomas discloses a fabric for an outer shell of a firefighter's garment. As described and illustrated in Figures 1 & 2 (shown below), the fabric 10 includes spun yarns 12 and multi-filament yarns 14 that are intermittently positioned within the fabric body to form a checkered

Serial No. 10/715,317
 Filing Date: November 17, 2004
 Amendment and Response
 Page 7 of 10

pattern. (Col. 2, ln 10-13.) The spun yarns comprise a blend of staple fibers. (Col. 2, ln 22-23.) The multi-filament yarns 14 comprise aramid filaments. (Col. 2, ln 50.)



Thomas does not describe how, if at all, the fabric can shield its multi-filament yarns (the alleged "relatively tough yarns") from abrasion and fails to teach or suggest that the multi-filament yarns do not protrude beyond an outer surface of the fabric. To the contrary, *Thomas* teaches that the multi-filament yarns *do* so protrude. *Thomas* contains only two figures: Figures 1 and 2 (shown above). In both figures, *Thomas* illustrates the multi-filament yarns 14 as being *substantially* larger than the spun yarns 12. In Figure 2, the multi-filament yarns 14 are *several times larger* than the spun yarns 12 that form the body of the fabric 10. Clearly, that size difference would result in the multi-filament yarns 14 protruding beyond the surface of the fabric 10. Figures 1 and 2 provide a strong indication that the fabric in *Thomas* has a construction in which the multi-filament yarns 14 protrude beyond the surface of the fabric 10 as is conventional with rip stop fabrics. Such an assumption is unavoidable, especially in view of Figure 2, which so clearly shows the multi-filament yarns several times larger than the spun yarns.

Figures 1 and 2 in *Thomas* are the *only* indications as to which size of spun yarn is used with which size of multi-filament yarn. *Thomas* does not teach using multifilament yarns and body yarns having respective properties that prevent the multi-filament yarns from protruding. More specifically and by way only of example, *Thomas* does not teach

Serial No. 10/715,317
Filing Date: November 17, 2004
Amendment and Response
Page 8 of 10

using multifilament yarns that have a diameter that is the same or smaller than the diameter of the spun yarns in a fabric. Teaching of respective sizes for *Thomas'* multi-filament yarns and body yarns without an identification of which sized multi-filament yarns are used with which sized spun yarns does not equate to a teaching of forming a fabric so that the multi-filament yarns do not protrude. In other words, just because the largest described spun yarn is larger than the smallest described multi-filament yarn does *not* amount to a teaching that those yarns are combined in a manner in which the multi-filament yarns "do not protrude" beyond a surface of the resulting fabric.

Thomas' omission of a discussion of what yarn size combinations are used, consistent with Figures 1 and 2, suggests that the largest sized spun yarn is only used with a larger sized multi-filament yarn. As is well known in the textile arts, "rip stop" fabrics in which relatively strong yarns, such as multifilament yarns, are placed in discrete portions of the fabric to form a checkerboard pattern normally do protrude beyond the outer surface of the fabric. Therefore, if any assumption is to be made, a person having ordinary skill in the art would assume that *Thomas'* multi-filament yarns do in fact protrude beyond the outer surface of the fabric.

Irrespective of what assumptions are reasonable in view of *Thomas'* teachings, the critical fact remains that *Thomas does not provide a teaching or suggestion as to which sized body yarns are to be used with which sized multi-filament yarns*. Without that, *Thomas* cannot be said to teach or suggest relatively tough yarns that "do not protrude beyond an outer surface of the fabric body."

In addition to failing to describe which body yarns are to be combined with which multi-filament yarns, *Thomas* provides no other guidance as to multi-filament yarns "not protruding" beyond the surface of the resulting fabric. *Thomas* does not disclose any of the relationships in size, linear density and/or weight described in Applicants' specification. (*see e.g., Applicants' specification* pg. 7, ln 1-8.") Applicant's specification describes characteristics of yarns that "do not protrude" beyond the fabric surface, stating:

the fabric 200 can be configured so that the relatively tough yarns 208 do not protrude beyond the outer surface of the fabric such the fabric shields the relatively tough yarns from abrasion. This end result can be achieved in a

US2606 9770-962.1

Serial No. 10/715,317
Filing Date: November 17, 2004
Amendment and Response
Page 9 of 10

variety of different ways. In one solution, the relatively tough yarns 208 are constructed so as to have *effective diameters that are equal to or less than those of the body yarns 206* that form the body of the fabric 200. In another solution, the *linear density and/or weight of the relatively tough yarns 208 is less than or equal to that of the body yarns 206*, assuming each has the same specific gravity.

Applicant's specification pg. 7, ln 1-8 (emphasis added). No equivalent disclosure is provided in *Thomas*.

Assignee's counsel have previously argued that *Thomas* fails to disclose fabric that can shield relatively tough yarns from abrasion. The present Office Action responds, stating:

the *Thomas* reference specifically discloses that the weight ratio of the spun yarns to multi-filament yarns should range from 85:15 to 92:8 (col 2, ln 15-17) and further discloses that the spun yarns have a much greater presence in the fabric than the multifilament yarns (multifilament yarn is inserted among the spun yarns at an insertion ratio of 1:5 to 1:20; col 2, ln 17-19.) As a result, the multifilament yarns, which are being equated to Applicant to Applicant's "relatively tough yarns" would be shielded from abrasion.

The cited portion of *Thomas* states:

The fabric weight may range from 6 to 8 OSY, preferably, 7 OSY. The weight ratio of spun yarns to multi-filament yarns should range from 85:15 to 92:8, preferably, 90:10. The multi-filament yarn may be inserted among the spun yarns, in both the warp and weft, at an insertion ratio of 1:5 to 1:20, preferably, 1:9.

As the Office Action appears to acknowledge by characterizing the spun yarns as having a "much greater presence in the fabric," the cited passage is referring to the weight ratio of *all* of the spun yarns to *all* of the multi-filament yarns in the fabric, which is clearly the result of the use of more spun yarns in the fabric (e.g., 1:5 to 1:20 insertion ratio of multi-filament to spun yarns). Thus, *Thomas* at most teaches that more spun yarns are used in the fabric than multifilament yarns – not that individual spun yarns have a greater weight than individual multi-filament yarns so as to shield the multi-filament yarns from abrasion. The cited passage does not teach "the relatively tough yarns *do not protrude beyond an outer surface of the fabric body*," as is now required by the claims and any such reading or interpretation of *Thomas* is contradicted by the *Thomas* Figures.

Serial No. 10/715,317
Filing Date: November 17, 2004
Amendment and Response
Page 10 of 10

Since *Thomas* does not teach or disclose each and every element of amended independent claims 1 and 13, these claims are allowable over *Thomas*. Dependent claims 2-12 and 13-24 are believed patentable by virtue of their ultimate dependence from allowable independent claims 1 and 13, respectively.

IV. NEW CLAIMS 27 - 30

New independent claims 27 and 29 also include the limitation that "the relatively tough yarns *do not protrude beyond an outer surface of the fabric body.*" (emphasis added.) Accordingly, the claims are believed to be patentable for at least the reasons described above with respect to claims 1 and 13. Claims 28 and 30, which depend from claims 27 and 29 respectively, recite that the relatively tough yarns have a diameter that is the same or smaller than a diameter of the body yarns, a feature also not disclosed or suggested in *Thomas*. Thus, claims 28 and 30 are also allowable.

CONCLUSION

Pending claims 1-24 and 27-30 should now be in condition for allowance. The Examiner is invited to contact the undersigned attorney at (404) 815-6626 for any reason.

Respectfully submitted,



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